Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1.   (canceled)

2.   (canceled)

3.   (canceled)

4.   (canceled)

5.   (canceled)

6.   (canceled)

7.   (canceled)

8.   (canceled)

9.   (canceled)

10.   (canceled)

11.   (canceled)

12.   (canceled)

13.   (canceled)

14.   (canceled)

15.   (canceled)

16.   (canceled)

17.   (canceled)

18.   (canceled)

19.   (canceled)

20.   (canceled)

21.   (canceled)

22.   (original)   A method for calibrating a local oscillator, comprising a plurality of voltage controlled oscillators, integrated on a single semiconductor chip for use in a broadband tuner, comprising the steps of:

selecting an initial frequency;

checking a lock detect output of a phase-locked loop iteratively for frequencies above and below the initial frequency to determine a lower edge and an upper edge of a set of frequencies to which a current voltage controlled oscillator can be tuned; and

performing said selecting and checking steps for each voltage controlled oscillator.

23. (original)   The method of claim 22, wherein said checking step is performed using a binary search algorithm.

24. (original)   The method of claim 23, wherein the binary search uses an initial step size between ten and fifty percent of the predicted bandwidth of the current voltage controlled oscillator.

25. (original)   The method of claim 22, wherein said selecting step uses a predicted center frequency for the current voltage controlled oscillator.

26. (original)   The method of claim 22, further comprising the step of:

calculating breakpoints between each voltage controlled oscillator from a set of upper and lower edges thereby minimizing the probability of one of the voltage controlled oscillators being used to tune to a frequency near either the upper or lower edge of that voltage controlled oscillator's tuning range.

27. (original)   The method of claim 26, further comprising the step of:

generating a look-up table for identifying which voltage controlled oscillator to use given a specified carrier frequency.

28. (original)   The method of claim 27, wherein said generating step further comprises generating a set of divide ratios to apply to an output of the local oscillator for inclusion in the look-up table.

29. (original)   The method of claim 26, wherein said calculating step further comprises calculating breakpoints for at least one pseudo voltage controlled oscillator.

30. (original)   The method of claim 29, further comprising the step of:

generating a look-up table for identifying which voltage controlled oscillator to use, and a divide ratio to apply to an output of the local oscillator, given a specified carrier frequency.

31. (original)   The method of claim 22, wherein the method is performed once at start-up.

32. (original)   A method for calibrating a local oscillator, comprising a plurality of voltage controlled oscillators, integrated on a single semiconductor chip for use in a broadband tuner, comprising the steps of:

selecting an initial frequency for one of the voltage controlled oscillators;

checking a lock detect output of a phase-locked loop iteratively for frequencies above and below the initial frequency to determine a lower edge and an upper edge of a set of frequencies to which the one voltage controlled oscillator can be tuned; and

calculating a lower and an upper edge for each of the remaining voltage controlled oscillators based on the upper and lower edge of the one voltage controlled oscillator and a set of predicted center frequencies for the remaining voltage controlled oscillators.

109822.000100/451646.01